

**AMENDMENTS TO THE CLAIMS:**

1.(currently amended) A network interconnection apparatus for interconnecting a LAN and an ATM network to perform communications, comprising:

routing information managing means for managing routing information of the ATM network;

wherein the routing information includes at least one of ACR (available cell rate), CTD (cell transfer delay) and CDV (cell delay variation);

statistical information managing means for managing statistical information of a connection between a LAN terminal and another LAN terminal, the statistical information includes information on traffic of two or more connections which may be established between a LAN terminal and another LAN terminal;

wherein said statistical information managing means manages, as the statistical information, a traffic volume which is a sum of frame sizes or a total number of frames within a fixed time interval and which reflects traffic status of the LAN, and an average traffic volume thereof;

QoS setting means for setting QoS for the ATM network which the ATM network ought to guarantee, based on measured statistics managed by the statistical information managing means, the QoS including information elements of a call connection request message;

wherein parameters of the QoS includes a service category which is at least one of CBR (Constant Bit Rate) or VBR (Variable Bit Rate), band, delay which is CTD, and fluctuation which is CDV;

QoS guarantee determining means for determining whether or not the QoS which the ATM network ought to guarantee, as determined by the QoS setting means, can be guaranteed;

wherein CBR is judged to be the service category if a maximum traffic volume

among the traffic volumes is not greater than the average traffic volume plus  $\alpha\%$  if average traffic volume times  $\alpha$  ( $1 < \alpha < 2$ ) is greater than maximum traffic volume, and VBR is judged to be the service category if the maximum traffic volume is greater than the average traffic volume plus  $\alpha\%$  average traffic volume times  $\alpha$  ( $1 < \alpha < 2$ ) is less than or equal to maximum traffic volume, where  $\alpha$  is a set value to determine whether the service category is CBR or VBR;

and wherein a value of CTD is decided in a small value if the service category is CBR and a value of CDV is decided in a small value if the service category is VBR if the service category is CBR then the value of CTD is decided to be smaller than the value when the service category is not CBR and if the service category is VBR then the value of CDV is decided to be smaller than when the service category is not VBR;

QoS adjusting means for adjusting the QoS so that the QoS can be guaranteed, if it is judged that the QoS cannot be guaranteed; and

call connection control means for performing call connection according to the QoS which can be guaranteed.

**Claims 2.-3. (canceled)**

4.(original) The network interconnection apparatus according to claim 1, wherein said QoS adjusting means adjusts a maximum burst size of QoS whose service category is variable transmission rate and whose maximum cell rate has been judged to be incapable of being guaranteed so that the QoS can be guaranteed.

5. (currently amended) The network interconnection apparatus according to claim 1, further comprising QoS information notifying means for making notification of QoS information to outside.

6.(original) The network interconnection apparatus according to claim 1, further

comprising route selecting means for selecting a route according to preferential QoS if there exist a plurality of route options when the call connection is to be performed.

**7.(original)** The network interconnection apparatus according to claim 1, which is connected to a maintenance terminal unit for performing maintenance and management.

**Claim 8.(canceled)**

**9. (previously presented)** The network interconnection apparatus according to claim 1, wherein the band is at least one of PCR (Peak Cell Rate), SCR (Sustainable Cell Rate) and MBS (Maximum Burst Size), and the QoS guarantee determining means selects PCR if the service category is CBR and selects PCR, SCR and MBS if the service category is VBR.